Independent claims 34, 72, 104 and 133 have been amended to recite that the drive moves the object in a two-dimensional plane. This feature was recited in dependent claims 67, 112, 127 and 142. Those dependent claims have been amended in view of the amendments to the independent claims. Independent claims 34, 72, 104 and 133 also have been amended to recite that positional information of the object is detected in the two-dimensional plane by the position detector. No new matter is added by the above amendments.

Claims 34-39, 43, 45, 46, 56, 57, 59-62, 71-81, 83, 85, 86, 96, 97, 99, 100, 102, 104-107, 109, 130-136, 138, 139, 144-149 and 154 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 4,383,757 to Phillips. In addition, claims 44, 47, 51, 52, 84, 87, 91, 92, 114-120, 150, 156 and 157 stand rejected under 35 U.S.C. §103(a) over Phillips. These rejections are respectfully traversed.

The Office Action asserts that, *inter alia*, lens positioning apparatus 107 of Phillips corresponds to the claimed second support structure, the lens positioning apparatus 107 (or at least some part of the lens positioning apparatus 107) corresponds to the claimed movable stage, and that servomotor 175 and its associated elements correspond to the claimed drive (or moving step). However, servomotor 175 and its associated elements do not drive (or move) the lens positioning apparatus 107 in a two-dimensional plane as recited in independent claims 34, 72, 104 and 133 of this application. Rather, the lens positioning apparatus 107 is driven in the Z-axis direction. There is no suggestion or reason in Phillips for driving the lens positioning apparatus 107 in a two-dimensional plane as claimed. In addition, the detector 11 of Phillips does not detect a stage position in a two -dimensional plane.

In addition, it is noted that the Office Action did not reject claims 67, 112, 127 and 142, which recite, *inter alia*, the two-dimensional feature.

Accordingly, the rejection of independent claims 34, 72, 104 and 133, as well as their dependent claims, over Phillips should be withdrawn. In view of the patentability of the independent claims, it is not necessary to further comment on the rejection of the dependent claims.

Claims 34-57, 59-63, 65-67, 69-97, 99, 100, 102-107, 109, 110, 112, 114-124, 126, 127, 129-136, 138-140, 142, 144-154, 156 and 157 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 4,654,571 to Hinds. This rejection is respectfully traversed.

The Office Action asserts that, *inter alia*, table surface 20 of Hinds corresponds to the claimed first support structure, platform 10 of Hinds corresponds to the claimed second support structure, and that the interferometers 32-34 of Hinds correspond to the claimed position detector. The Office Action correctly notes that the interferometers of Hinds are fixed to the table 20 (i.e., what the Office Action asserts corresponds to the claimed first support structure). However, independent claims 34, 72, 104 and 133 recite that the position detector is supported by the second support structure. Hinds does not disclose or suggest the combination of features recited in independent claims 34, 72, 104 and 133.

Thus, independent claims 34, 72, 104 and 133, as well as their dependent claims, are patentable over Hinds. In view of the patentability of the independent claims, it is not necessary to further comment on the rejection of the dependent claims.

Claims 58, 98, 108 and 137 stand rejected under 35 U.S.C. §103(a) over Hinds and further in view of U.S. Patent No. 4,803,712 to Kembo et al. This rejection is respectfully traversed.

Claims 58, 98, 108 and 137 are patentable at least for the reasons set forth above with respect to their independent claims. Thus, it is not necessary to further comment on the rejection of these claims.

Claims 34, 63, 64, 67, 68, 72, 101, 104, 110-114, 125, 127, 128, 133, 139-145 and 155 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 4,980,718 to Salter et al.,

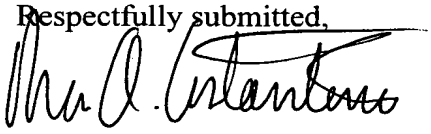
and/or alternatively over Salter et al. in view of Hinds. These rejections are respectfully traversed.

The Office Action refers to Fig. 8 of Salter et al., and indicates that carriage 59 is isolated from table 62 by air bearings. However, as described above with respect to Hinds, Salter et al. does not disclose or suggest providing any position detectors supported by the carriage 59. Thus, independent claims 34, 72, 104 and 133, as well as their dependent claims, are patentable over Salter et al. alone, or when combined with Hinds, for at least all of the reasons set forth above with respect to the rejection of the claims in view of Hinds. In view of the patentability of the independent claims, it is not necessary to further comment on the rejection of the dependent claims.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe anything further would be desirable to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



Mario A. Costantino
Registration No. 33,565

MAC:ccs

Attachments:
Appendix
Petition for Extension of Time

Date: April 29, 2002

**OLIFF & BERRIDGE, PLC**
**P.O. Box 19928**
**Alexandria, Virginia 22320**
**Telephone: (703) 836-6400**

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Claims:



The following are marked-up versions of the amended claims:

34. (Amended) A method of making a microlithography system that forms an image onto an object, comprising the steps of:

providing an irradiation apparatus that irradiates the object with radiation to form the image on the object;

providing a movable stage associated with the irradiation apparatus;

providing a first support structure;

providing a second support structure dynamically isolated from the first support structure;

providing a drive to move the movable stage in a two-dimensional plane such that a reaction force exerted by the movement of the movable stage is transferred to the first support structure; and

providing a position detector to detect a position of the movable stage in the two-dimensional plane, the position detector being supported by the second support structure.

67. (Amended) A method according to claim 34, wherein the drive moves the movable stage in ~~a~~the two-dimensional plane, including movement in the plane in a first linear direction, in a second linear direction and in a rotative direction on an axis of the movable stage.

72. (Amended) An image forming method that forms an image onto an object, comprising the steps of:

moving a stage in a two-dimensional plane;

transferring a reaction force caused by the movement of the stage to a first support structure;

detecting a position of the stage in the two-dimensional plane by a position detector that is supported by a second support structure dynamically isolated from the first support structure; and

forming the image onto the object by movement of the stage.

104. (Amended) A method of making a positioning apparatus that positions an object, comprising the steps of:

providing a first support structure;

providing a second support structure dynamically isolated from the first support structure;

providing a drive to move the object in a two-dimensional plane such that a reaction force exerted by the movement of the object is transferred to the first support structure; and

providing a position detector to detect a positional information of the object in the two-dimensional plane, the position detector being supported by the second support structure.

112. (Amended) A method according to claim 104, wherein the drive moves the object in ~~a~~the two-dimensional plane, including movement in the plane in a first linear direction, in a second linear direction and in a rotative direction on an axis of the object.

127. (Amended) A method according to claim 114, wherein the drive moves the movable stage in ~~a~~the two-dimensional plane, including movement in the plane in a first linear direction, in a second linear direction and in a rotative direction on an axis of the movable stage.

133. (Amended) A positioning method that positions an object, comprising the steps of:

moving the object in a two-dimensional plane;

transferring a reaction force caused by movement of the object to a first support structure;

detecting a position information of the object in the two-dimensional plane by a position detector supported by a second support structure dynamically isolated from the first support structure; and

positioning the object based on a detection result by the position detector.

142. (Amended) A method according to claim 139, wherein the step of driving the object comprises moving the object in ~~a~~the two-dimensional plane, including moving the object in first and second linear directions and rotating the object on an axis of the object.